



# **Computer Preparation Book**

**1<sup>st</sup>.Sec**

**Second Term**



**2024 - 2025**

## Teacher's Biography

Name: .....

School: .....

The educational administration: .....

Qualification: .....

Teaching Subject: .....

Comprehensive School: .....

The school to which he is delegated: .....

Date of appointment: .....

The job is on the staff: .....

Teacher Code: .....

Mobile Number: .....

**Teacher**

**Supervisor**

**School Principal**

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# Daily class schedule

Session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Session Day	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eightieth	Ninth
Saturday									
Sunday									
Monday									
Tuesday									
Wednesday									
Thursday									

Teacher

Supervisor

School Principal

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# Distribution of computer and information technology content



























For 1<sup>st</sup>.Sec – 2024 - 2025

Second Term

Week	Topic	Accompanying activities
1	- Training in reading Excel sheet data using Visual Basic .NET, identifying the variables used in the project, and identifying the classifications used in the programming code	Practical parts for each lesson
2	- Training in reading Excel sheet data using Visual Basic .NET, assigning the values used to the variables, and using the necessary code to fill the data controls	
3	- Complete the exercise of reading Excel sheet data using Visual Basic .NET	
4	- Create the function to read Excel sheet data	
5	- Write the code necessary to fill the combobox tool with the names of the continents - Solving questions and exercises on the eighth topic	
6	Topic nine: Writing project code - Write the code necessary to fill the combobox tool with the names of countries - Write the necessary code to display country data using theLabel tool . - Solving questions and exercises on the ninth topic	
7	Topic Ten: Adding a map and country flag to the Arab Electronic Atlas program - Write the necessary code to display the country’s flag and map using thepicturebox tool .	Practical parts for each lesson
8	Solving questions and exercises on the tenth topic –	
9	Topic Eleven: Adding the voice of national peace to the Arab Electronic Atlas program - Writing the code necessary to play the country’s national anthem sound file - Write the code necessary to turn on or stop the country’s national anthem sound file	
10	- Solving questions and exercises on topic eleven	
11	Topic Twelve: Adding a video of tourist attractions to the Arab Electronic Atlas program - Writing the code necessary to play the video file of the country’s tourist attractions	
12	Solve questions and exercises on topic twelve	
13 – 14	General review and solution of questions for the second semester	

## The General Objectives of Computer

**At the end of the second term the student will be able to:**

-   Using problem solving technique to create an '(Electronic Arabic Atlas)'.
-   Manipulating data through the operating system and the Internet.
-   Creating a database using one of the Spreadsheets Applications.
-   Creating and employing multimedia files.
-   Establishing Project's interface and adjusting its properties.
-   Using Visual Basic. Net language to display Project's data.
-   Writing Project's codes and, other codes to play and stop multimedia files.
-   Create and processes audio files through some audio editing and processing programs.
-   Create and processes video files through some video editing and processing software.
-   Create a communication channel between databases and software
-   Initialize and recalls image, audio and video files within the software
-   Uses one of the SQL statements(Select)
-   Employ image, audio and video files within the software

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**Supervisor**

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## The specified objectives of computer

**At the end of the second term the student will be able to:**

- ✂ ✂ Write the code required to retrieve data from an Excel sheet.
- ✂ ✂ Write the code required to display data through their corresponding controls on the user interface window.
- ✂ ✂ Explain what is meant by the following terms:
  - ADO
  - Class.
  - Object.
  - Namespace.
  - Framework.
  - SQL
- ✂ ✂ Write the code to open a communication channel.
- ✂ ✂ Declare the variables needed to open a communication channel.
- ✂ ✂ Write the code for loading an Excel file into memory.
- ✂ ✂ Assign data in Spreadsheet' columns located in the memory, to their corresponding controls on the user interface window.
- ✂ ✂ Write the code required to retrieve data from an Excel sheet,
- ✂ ✂ Write the code required to display data through their corresponding controls on the user interface window.
- ✂ ✂ Write the code for displaying images through the user interface controls.
- ✂ ✂ Prevent possible errors while running the program.
- ✂ ✂ Show off the image file types inside the folder.
- ✂ ✂ Identify the path where image files will be saved.
- ✂ ✂ Write the program code to play or stop a sound file; when pressing the command button
- ✂ ✂ Declare variables and specify their location; on the level of class, or procedure.
- ✂ ✂ Show the audio file types inside the folder.
- ✂ ✂ Specify the path where sound files are saved
- ✂ ✂ Write the program code to play or stop a video file.
- ✂ ✂ Specify the path where video files are saved.
- ✂ ✂ Show the video file types inside the folder.

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Date					
Session					
Class					

## Lesson 1

### Reading data from an Excel sheet using Visual Basic.net

Learning Objectives:	Strategy
<b>By the end of the lesson, the student should be able to:</b> <ul style="list-style-type: none"> <li><b>Explain</b> what is meant by the following terms "Ado – Class – Object"</li> <li><b>Write</b> the code to open a communication channel.</li> <li><b>Declare</b> the variables needed to open a communication channel</li> </ul>	Brain storming – Dialogue and discussion Critical thinking
	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** While writing program code in Visual Studio.NET, you will use certain terms and apply the main concepts that you studied last year. Also you will learn some new terms that follows:

## Lesson Presentation

### • ADO (ActiveX Data Object):

It is an **advanced technology** that can be **used to design "Controls" not as ordinary tools; but "Controls" that get access to databases** over appropriate applications and develop applications and Programming Projects i.e. (Windows Applications and Web Application) that manipulate data from a diversity of databases. Where; ADO.NET is a set of classes that provides access to multiple data sources; such as "Microsoft SQL Server, Microsoft Access, and Oracle ". This software's can create/manipulate databases; ADO.NET is a part of the Framework.

• **Class:** is the blueprint/ plan / template, from which the individual objects, are created. It is the blueprint that describes the details which any object takes (its Properties, Methods and, Events); and are derived from the (Class).

• **Object:** is characterized by:

1- The **properties** that **describe and specify an Object**.

2- The **events** that **occur on an Object**.

3- The **methods** or actions that an **object can perform**; upon the occurrence of a particular event.

An (Object) is the basic constructive element in Object Oriented Programming; it is created from a defined class. Thus an (Object) exists only after a certain (Class) has been created.

• **Namespace:** contains a set of related classes that can be used when needed.

• **Framework:** Is the platform for Visual Studio.NET applications that:

1- Enables developers to create applications like (Desktop applications, Web applications and Mobile applications).

2- Provides a development environment for running all applications.

• **The Framework is composed of:**

1- The execution engine (**CLR**) Common Language Runtime.

2- The .NET class libraries (**System Class Libraries**).

3- Compilers

4- Other elements.

### Evaluation: -

**Complete:** ..... is the blueprint/ plan / template, from which the individual objects, are created



Date					
Session					
Class					

## Lesson 2

Use the code to populate the controls

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Brain storming – Dialogue and discussion – Active Learning
<ul style="list-style-type: none"> <li><b>Explain</b> what is meant by the following terms "Ado – Class – Object"</li> <li><b>Write</b> the code to open a communication channel.</li> <li><b>Declare</b> the variables needed to open a communication channel</li> </ul>	Teaching aids Electronic board – Student's Book – – presentation

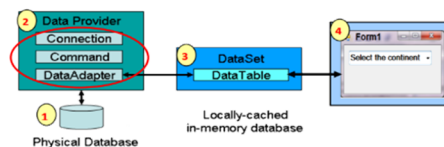
**Warm up /** What is the meant by Structured Query Language

## Lesson Presentation

### • SQL (Structured Query Language) :

It is a programming language designed for managing database files.

The following figures demonstrate the stages for retrieving data from a database saved in a storage medium, and converting it to a data table in the memory, and then display it in the appropriate object located on the interface window Form in Visual Basic.Net language.



### Examples of select statement If you have a spreadsheet as follows:

Retrieve **all records** from a spreadsheet Table1 using the Select statement.

**Syntax:** Select \* from TableName

**Statement:** Select \* from Table1

Show the "**Continent**" column from the data table Table1 **without repetition** using the Select Statement.

**Syntax:** Select Distinct FieldName from TableName

**Statement:** Select Distinct القارة from Table1

القارة	الدولة	العاصمة	من أهم الموانئ	من مصادر المياه
آسيا	السعودية	الرياض	جدة	وادي فخر - أبو حيدة
آسيا	الكويت	الكويت	الأحمدي	وادي الناطن
آسيا	اليمن	صعاء	عذب	وادي الحارث
آسيا	قطر	الدوحة	الدوحة	تحليه الخليج العربي
آسيا	عمان	مسقط	مسقط	وادي العين - مسلم
أفريقيا	مصر	القاهرة	الأسكندرية	نهر النيل
أفريقيا	ليبيا	طرابلس	بنغازي	وادي زمر - بي الكبير
أفريقيا	تونس	تونس	صفاقس	وادي مليان - مجاردة
أفريقيا	الجزائر	الجزائر	وهران	وادي تماراست
أفريقيا	المغرب	الرباط	الدار البيضاء	نهر الربيع - يوراف

القارة
آسيا
أفريقيا

**Select:** It is one of the SQL statements used to retrieve records from a table or from multiple tables in the database.

**Data Source:** The source of data (A file located in a storage media or a table stored in the memory).

**Provider:** It is a link between the database and Visual basic. Each Database program has its own Data Provider (Connection, Command and, Data Adapter).

**Dataset:** It is a Class from where we can create a variable: ds. This variable in the computer's memory represents database tables (Data Tables), which was brought from the data file into memory.

**DataTable:** We can create a variable out of this class: dt. This variable in the computer's memory represents a table for saving data (Data Table), which was brought from the data file.

### Evaluation:

#### Choose:

- The connection between VB.Net and Data Base (Data Adapter – Command – Connection).



Date					
Session					
Class					

### Lesson 3

Write a code to fill in the names of the continents

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Brain storming – Dialogue and discussion– Collaborative learning
<ul style="list-style-type: none"> <li>Write the code to open a communication channel.</li> <li>Declare the variables needed to open a communication channel.</li> <li>Write the code for loading an Excel file into memory.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** What is the meant by Structured Query Language

## Lesson Presentation

### Example No 1:

Find the sum of the two numbers 8 and 10 using the Select statement.

**Syntax:** Select No1 + No2

**Statement:** Select 8 + 10

**Output:** 18

### Example No 2:

Retrieve **all records** from a spreadsheet Table1 using the Select statement.

**Syntax:** Select \* from TableName

**Statement:** Select \* from Table1

### Example No 3:

Show the "Continent" column from the data table Table1 using the Select Statement.

**Syntax:** Select FieldName from TableName

**Statement:** Select القارة from Table1

**Output:**

### Example No 4:

Show the "Continent" column from the data table Table1 "without repetition using the Select Statement.

**Syntax:** Select **Distinct** FieldName from TableName

**Statement:** Select Distinct القارة from Table1

**Output:**

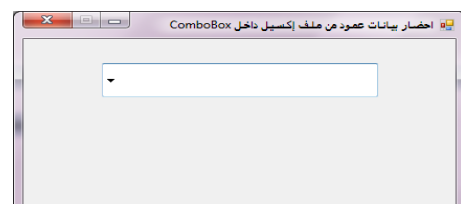
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→ → Use VBasic.NET language to create a new project where the interface window "Form" contains one control ( **ComboBox1** ), and then write the necessary code to retrieve data (for example the "Continent" column ) from the database : the Excel file " **AtlasData.xls** " ; this data will be displayed inside the control ( **ComboBox1** )..

**Do the following steps**

- 1- Create a new project.
- 2- Choose the control ( **ComboBox1** ) from the Toolbox and place it inside the Form
- 3- Go to the ( Code Window ) and then type the code as follows:



**Evaluation:**

**Choose:**

- 1- To open code window in VB.Net we press the key ( Name – F7 – Provider )

Date					
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Class					

## Lesson 4

### Reading data from an Excel sheet using Visual Basic.net

#### Learning Objectives:

By the end of the lesson, the student should be able to:

- **Declare** the variables needed to open a communication channel.
- **Write** the code for loading an Excel file into memory.
- **Assign** data in Spreadsheet' columns located in the memory, to their corresponding controls on the user interface window.

#### Strategy

Dialogue and discussion –Critical thinking

#### Teaching aids

Electronic board – Student's Book –  
– presentation

**Warm up /** How many operands are assigned to this function?

## Lesson Presentation

```
Function GetDatafromExcelSheet(filePath As String, sql As String) As DataTable
End Function
```

This function has 2 operands:

- ♣ “**File Path**” that represents a path Excel file.
- ♣ “**Sql**” that represents a sentence through which we will inquire about the data from the Excel file.

This function returns a value of type DataTable inside the computer memory; that represents the data brought from Excel file.

♣ Declare the following variables:

- The Variable “**My Connection**” that **allows opening a channel of communication** in the worksheet that holds data in an Excel file.
- The Variable “**My Command**” will **perform a query** by which you can get the data from an Excel file.
- The Variable “**da**” will **transfer data from an Excel file to the data Table of Variable “dt”**.
- The Variable “**dt**” has a table for **saving the data brought from the Excel file**.

ComboBox control maintains two values: one of them is a **shown value** that is kept inside **Display Member** property and the other value is **not shown**; it's kept inside **Value Member** property.

When we run the program, we find names of continents in the list as shown below:



#### Evaluation:

Put **✓** or **X**:

1. You can use a variable of type (OleDbCommand) for the purpose of opening a channel of communication data file.

Date					
Session					
Class					

## Lesson 5

Reading data from an Excel sheet  
using Visual Basic.net " Questions"

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion –Critical thinking
<ul style="list-style-type: none"> <li>Mention the most important term for the lesson.</li> <li>Write the code for loading an Excel file into memory.</li> <li>Solve the lesson's question correctly.</li> </ul>	<b>Teaching aids</b> Electronic board – Student's Book – – presentation

**Warm up /** Solve Student's book Exercises.

## Lesson Presentation

**Question No 1: Put (✓) or (x) in front of each of the following Statement:**

No	Statement	(✓)	(x)
1-	We open channel of communication between the programme that is created in Visual basic Dot Net language and Excel file by using ADO.NET tools.		
2-	Variable of type ( OleDbConnection) is used in closing the communication channel that has been opened.		
3-	The return value from the function : "GetDatafromExcelSheet (FilePath As String, sql As String) As DataTable" is of type String.		
4-	The announcement of a <i>Function</i> is done by using the word "Sub".		
5-	You can use a variable of type (OleDbCommand) for the purpose of opening a channel of communication data file.		
6-	You can create a variable of type (DataTable) in-memory ; in which we store data that were brought from the data file.		

**Question No 2: Read the following code, and then answer the following:**

1- We declared a function named:.....

2- This function has two kinds of operands :..... and sql where .....

represents a path Excel file and..... represents the sentence from which we will inquire about the data from excel file.

3- This function will return with a value of the type ..... :which is a Data Table in computer memory holding data that has been imported from Excel file.

4- We have declared the following variables:

- The variable ..... to open a channel of communication on a worksheet holding data from an Excel file.
- The variable ..... that executes a query to get data from Excel file.
- The variable ..... will act as an adapter for data from Excel file.
- The variable ..... has a table in which we save data that have been brought from the Excel file.

5- Then the data adapter "da" uses the command ..... which has the Query syntax sql about the required data from Excel file that used the Communication channel "MyConnection" as a way to convert data to "dt"

```
Function GetDatafromExcelSheet(FilePath As String, sql As String) As DataTable
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable

    MyConnection.ConnectionString = "provider=Microsoft.Jet.OLEDB.4.0; " & _
        "data source=" & FilePath & "; " & _
        "Extended Properties=Excel 8.0"

    MyCommand.Connection = MyConnection
    MyCommand.CommandText = sql

    da.SelectCommand = MyCommand
    da.Fill(dt)

    Return dt
End Function
```

**Evaluation:**

**Evaluate Student's Answer.**

Date					
Session					
Class					

## Lesson 6

### Writing the Project Code

#### Learning Objectives:

By the end of the lesson, the student should be able to:

- Write the code required to retrieve data from an Excel sheet.
- Write the code required to display data through their corresponding controls on the user interface window.
- Detects possible errors and displays the appropriate error message.

#### Strategy

Dialogue and discussion – Critical thinking – Brain Storming

#### Teaching aids

Electronic board – Student's Book – presentation

**Warm up /** When the event " SelectedIndexChanged " is executed?

## Lesson Presentation

To write the (Electronic Arabic Atlas) Program code:

Double click the "Continents" ComboBox that opens in the design mode, and then the event handler appears as follows:

```
Private Sub cmbbxContinent_SelectedIndexChanged(sender As Object, e As EventArgs) Handles cmbbxContinent.SelectedIndexChanged
    '
End Sub
```

→ Write the following code to display a list of country' names of the Continent in the cmbbxState list, as shown in this code:

In the previous code, you notice the following:

• The statement 'Try/Catch' was used to prevent errors; while running the program, the errors might result from calling the event **cmbbxContinent\_SelectedIndexChanged** before the fill in of the list of continents' names.

```
Private Sub cmbbxContinent_SelectedIndexChanged(sender As Object, e As EventArgs) Handles cmbbxContinent.SelectedIndexChanged
    Try
        Dim dt As New DataTable
        dt = GetDataFromExcelSheet("c:\Atlas\database\atlas.xls", _
            "select * from [data$] where القارة = '" & Me.cmbbxContinent.SelectedValue & "'")

        Me.cmbbxState.DataSource = dt
        Me.cmbbxState.DisplayMember = dt.Columns(0).ToString
        Me.cmbbxState.ValueMember = dt.Columns(1).ToString

        Me.cmbbxState.SelectedIndex = 3
        Me.cmbbxState.SelectedIndex = 0

    Catch ex As Exception
    End Try
End Sub
```

• The following two lines of code were used to call the Event **cmbbxState\_SelectedIndexChanged** to show Egypt's own data:

```
Me.cmbbxState.SelectedIndex = 3
Me.cmbbxState.SelectedIndex = 0
```

• When you run the program, you find a list of countries as shown in the following figure: Double click "Countries" ComboBox that opens in the design mode, and then the event handler appears as follows.

```
Private Sub cmbbxState_SelectedIndexChanged(sender As Object, e As EventArgs) Handles cmbbxState.SelectedIndexChanged
    '
End Sub
```

Write the necessary code that shows the selected "Country" data as illustrated in the following figure:

```
Private Sub cmbbxState_SelectedIndexChanged(sender As Object, e As EventArgs) Handles cmbbxState.SelectedIndexChanged
    Try
        Dim dt As New DataTable
        dt = GetDataFromExcelSheet("c:\Atlas\database\atlas.xls", _
            "select * from [data$] where الدولة = '" & Me.cmbbxState.SelectedValue & "'")

        Me.lblDC.Text = dt.Rows(0).Item(2).ToString
        Me.lblPorts.Text = dt.Rows(0).Item(3).ToString
        Me.lblNR.Text = dt.Rows(0).Item(4).ToString

    Catch ex As Exception
    End Try
End Sub
```



In the previous code, Rows refer to rows and Items refer to columns in the Excel sheet. The rows and columns numbers start with (0); row (0) refers to first row, and item (2) refers to the third column. Remember the following:

- On choosing a Continent, the names of its related Countries will be displayed.
- On choosing a Country, its related data appear in the controls displayed on the user interface window.
- A value is assigned to each element of the variable " dt " (Data table) for each field corresponding to the displayed Control; on the user interface window.
- The statement (Try/ Catch) is used with the code to prevent the occurrence of errors during running the program. After running the program, the user interface window appears as follows:

**Evaluation:** Solve Student's book questions.





Date					
Session					
Class					

## Lesson 7

### Adding the country flag and its map in (Electronic Arabic Atlas)

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Write the code for displaying images through the user interface controls.</li> <li>Prevent possible errors while running the program.</li> <li>Show off the image file types inside the folder.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** What is the property responsible for inserting an image into the Picture box tool?

## Lesson Presentation

❑ Set the names of the image files (**Flags and Maps**) with the same names displayed in the list of country names.

✎ Some file names of country flags in the **Flags** folder: "السعودية.png – تونس.png – مصر.png"

✎ Some file names of country maps in the **Maps** folder: "السعودية.png – تونس.png – مصر.png"

• The similarity in the names of the image files in the two folders Flags and Maps to simply deduce their names when assigning these images for both controls (pictureBoxFlag, pictureBoxMap) as written in the Excel sheet.

• Write the following code in the event handler cmbbxState\_SelectedIndexChanged to display the country flag and its map as shown in the following code:

```
Private Sub cmbbxState_SelectedIndexChanged(sender As Object, e As EventArgs) Hand
Try
Dim dt As New DataTable
dt = GetDataFromExcelSheet("c:\Atlas\database\atlas.xls", _
"select * from [data$] where الدولة = '" & _
Me.cmbbxState.SelectedValue & "'")
Me.lblDC.Text = dt.Rows(0).Item(2).ToString
Me.lblPorts.Text = dt.Rows(0).Item(3).ToString
Me.lblWR.Text = dt.Rows(0).Item(4).ToString

Dim picName As String = dt.Rows(0).Item(1).ToString & ".png"
Me.pictureBoxFlag.Image = Image.FromFile("c:\Atlas\flags\" & picName)
Me.pictureBoxMap.Image = Image.FromFile("c:\Atlas\maps\" & picName)

Catch ex As Exception
End Try
End Sub
```

• While running the program, the flag and map of the selected country are displayed as shown in the following:



### Note: -

1. Make sure of naming each file with a name suitable to its content
2. Illustrate different file types used in the project (Map – flag – National Anthem – video clip of touristic attractions.....).
3. Identify the path used for saving files.
4. Use Try/catch statement within the code to detect errors that may occur during program's execution and, to display an appropriate message for this error.

### Evaluation:

**Complete:** – We use statement ..... to prevent runtime errors



Date					
Session					
Class					

## Lesson 8

Adding the country flag and its map in (Electronic Arabic Atlas)

"Questions"

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Write the code for displaying images through the user interface controls.</li> <li>Prevent possible errors while running the program.</li> <li>Identify the path where image files will be saved.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** Solve Student's book Exercises?



## Lesson Presentation

1. Read the following code, and then choose the correct answer

```
Dim picName As String = dt.Rows(0).Item(1).ToString & ".png"
Me.picFlag.Image = Image.FromFile("c:\Atlas\flags\" & picName)
Me.picMap.Image = Image.FromFile("c:\Atlas\maps\" & picName)
```

The value assigned to the variable PicName is:

No	Statement	(✓)	(×)
1-	The content of Row (0) and the column (1) in the table "dt"; plus the file extension .png.		
2-	The content of the Row (1) and the column (0) in the table "dt"; plus the file extension .png.		
3-	The content of Row (0) and the column (1) in the table "dt"; plus the file extension ToString.		

2. Read the following code, and then choose the correct answer.

```
Me.picFlag.Image =
Image.FromFile("c:\Atlas\flags\" & picName)
```

The code is used to assign a picture file to the property:

No	Statement	(✓)	(×)
1-	Image for the control PicFlag		
2-	FromFile for the control PicFlag		
3-	Image for the control FromFile		

Evaluation: Solve Student's book questions.

Date					
Session					
Class					

## Lesson 9

### Adding the national anthem sound file to (Electronic Arabic Atlas)

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking– Brain Storming
<ul style="list-style-type: none"> <li><b>Write</b> the program code to play or stop a sound file; when pressing the command button</li> <li><b>Declare</b> variables and specify their location; on the level of class, or procedure.</li> <li><b>Show</b> the audio file types inside the folder.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** How to insert an audio file into W.M.P tool?

## Lesson Presentation

Adjust audio file names of countries' national anthem; with the same names shown in the list of countries names.

• Some audio file names of countries' national anthem saved in the "**Anthem**" folder mp3. تونس mp3. مصر mp3. السعودية mp3.

• Type the following code in the "**cmbbxState\_SelectedIndexChanged**" event handler to run the national Anthem of the country as shown in the following code:

```
Dim anthemMp3 As String
Private Sub cmbbxState_SelectedIndexChanged(sender As Object, e As EventArgs) Handles cmbbxState.SelectedIndexChanged
    Try
        Dim dt As New DataTable
        dt = GetDataFromExcelSheet("c:\Atlas\database\atlas.xls", _
            "select * from [data$] where الدولة = '" & Me.cmbbxState.SelectedValue & "'")
        Me.lblDC.Text = dt.Rows(0).Item(2).ToString
        Me.lblPorts.Text = dt.Rows(0).Item(3).ToString
        Me.lblWR.Text = dt.Rows(0).Item(4).ToString

        Dim picName As String = dt.Rows(0).Item(1).ToString & ".png"
        Me.picbxFlag.Image = Image.FromFile("c:\Atlas\flags\" & picName)
        Me.picbxMap.Image = Image.FromFile("c:\Atlas\maps\" & picName)

        anthemMp3 = "c:\Atlas\anthem\" & dt.Rows(0).Item(1).ToString & ".mp3"
        Me.WMPPlayer.URL = anthemMp3
        Me.btnStop_play.Text = "إيقاف تشغيل السلام الوطني"
    Catch ex As Exception
    End Try
End Sub
```

### Notice:

A variable named anthemMp3 was declared to the level of class, to save the path and the name of the sound file; so it can be used in more than one event handler.

To control the start or stop of a sound national Anthem file; type the code in the "btnStop\_play\_Click" event handler of the button

"btnStop\_Play" as shown in the following code:

```
Private Sub btnStop_play_Click(sender As Object, e As EventArgs) Handles btnStop_play.Click
    If Me.btnStop_play.Text = "إيقاف تشغيل السلام الوطني" Then
        Me.WMPPlayer.close()
        Me.btnStop_play.Text = "تشغيل السلام الوطني"
    Else
        Me.WMPPlayer.URL = anthemMp3
        Me.btnStop_play.Text = "إيقاف تشغيل السلام الوطني"
    End If
End Sub
```

### Remember:

Make sure of naming the audio files for the national anthem of each country. Show the national anthem file types. The user interface window will appear after the execution as follows:



### Evaluation:

#### Choose:

1. If statement end with (Stop Sub – End If – Final If)

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## Lesson 10

### Adding the national anthem sound file to (Electronic Arabic Atlas)

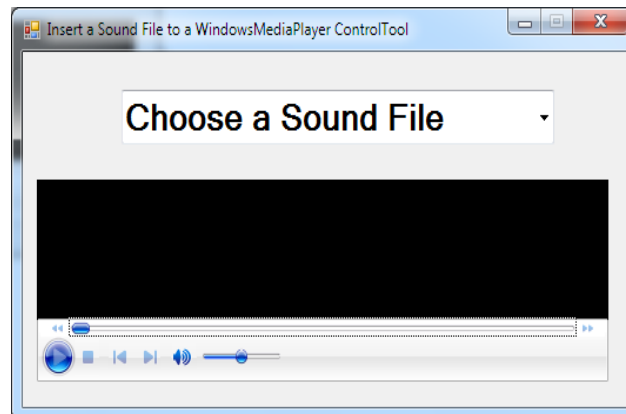
#### "Question"

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Write the program code to play or stop a sound file; when pressing the command button</li> <li>Declare variables and specify their location; on the level of class, or procedure.</li> <li>Show the audio file types inside the folder.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** Solve Student's book Exercises?

## Lesson Presentation

Set up a project with name (VB\_Multimedia\_Sound2K) to insert a sound file into the control (AxWindowsMediaPlayer) using the control (ComboBox), as illustrated on the form:



**Program code:**

```

Insert a Sound File to a WindowsMediaPlayer
ControlTool
Public Class Form1
Private Sub ComboBox1_SelectedIndexChanged(ByVal
sender As System.Object, ByVal e As System.EventArgs)
Handles ComboBox1.SelectedIndexChanged
Dim V As String
V = ComboBox1.SelectedItem
AxWindowsMediaPlayer1.URL = V
End Sub
End Class

```

**Evaluation:**

**Evaluate Student's questions**

Date					
Session					
Class					

## Lesson 11

### Adding the Video file of tourist attractions to (Electronic Arabic Atlas)

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Write the program code to play or stop a video file.</li> <li>Specify the path where video files are saved.</li> <li>Show the video file types inside the folder.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** How to hide or show windows media player tool?

## Lesson Presentation

Adjust video file names of countries' tourist attractions; with the same names shown in the list of countries names.

→ Some video file names of countries' tourist attractions saved in the "Video" folder mp4. مصر - mp4. السعودية. تونس.

→ Add a command button to the interface of the program So that the value of the property Name is "btnPlayVideos" and the value of the property Text is "tourist attractions".

→ Type the following code in the "btnPlayVideos\_Click" event handler for "btnPlayVideos" button to run tourist attractions video file for the countries as shown in the following code:

```
Private Sub btnPlayVideos_Click(sender As Object, e As EventArgs) Handles btnPlayVideos.Click
    If Me.btnPlayVideos.Text = "معالم سياحية" Then
        Me.WMPPlayer.Visible = True
        Me.WMPPlayer.URL = "c:\Atlas\videos\" & Me.cmbbxState.SelectedValue.ToString & ".wmv"
        Me.btnPlayVideos.Text = "إيقاف العرض"
    Else
        Me.WMPPlayer.Visible = False
        Me.WMPPlayer.close()
        Me.btnPlayVideos.Text = "معالم سياحية"
    End If
End Sub
```

### Remember

1. Make sure of naming the video files of tourist attractions for each country.
2. Show the video files of tourist attractions.
3. Recognize the path where video files are saved.

### Notice

1. The property **SelectedValue** of the control "cmbbxState" was used to get the name of the country; to identify the video file name and path.
2. The control WMPPlayer was displayed by setting the property **Visible** to the value **True**; so you can see the video file displayed on the screen.
3. You can turn off or play the video file through **btnPlay Videos** button as shown in the previous code.

The user interface window will appear after the execution as follows:

### Evaluation:

### Complete:

The property ..... of the control "cmbbxState" was used to get the name of the country.





Date					
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Class					

## Lesson 12

Adding the Video file of tourist attractions to (Electronic Arabic Atlas) - "Question"

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>can revise project code</li> <li>Specify the path where video files are saved.</li> <li>Show the video file types inside the folder.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** How to insert a video into windows media player from a file?



State whether the following statements are true (✓) or false (X)

The statement	(✓)	(x)
1. You can use Try/Catch to discover errors while running the program and display an appropriate message for this error		
2. The code Me.IbIDC.Text = dt.Rows(0).Item(2).ToString customize a value to the element in the second row and first column of the data table IbIDC.		
3. The event SelectedIndexChanged of the control ComboBox is executed when changing the current item in the existing list.		
4. The (&) operator is used to concatenate between string variables and text; the result is a single string.		
5. The code Me.IbIDC.Text = dt.Rows(0).Item(2).ToString customize a value to the element in the first row and third column in the spreadsheet and places it within the IbIDC.		
6. To the URL property in the code Me.WMPlayer.URL = "anthem.mp3" is used to stop or play the sound file "anthem.mp3".		
7. The function FromFile is used to assign a picture from a file.		
8. The property DisplayMember of the control ComboBox can be used to specify a field from the data source that appears inside this control.		
9. The property ValueMember of the control ComboBox can be used to specify a field from the data source as the value of each element of the list items.		

**Evaluation:**

**Solve Student's book questions**



Date					
Session					
Class					

## Lesson 13

### Revision

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Identify the most important terms of the lesson.</li> <li>Solve the student's book exercises.</li> <li>Write the project's code in right way.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** What are the most important basics of Atlas project?

### Lesson Presentation

**Q1:- Choose The Correct Answer:**

(Private Sub – Try/Catch – Me – & – Dim – DataTable – dt – twice)

- To open the code window on the default event handler of the tool, we click .....on the tool in the design screen .
- The procedure in the code window begins with the words .....
- The command Dim dt As New DataTable The variable is ( dt ) and the type of the variable is .....
- The word ..... used in the code indicates the current model
- The ..... sentence is used to prevent errors that may occur during the operation of the program
- The ..... join symbol is used to concatenate strings to form a single string
- ..... Variables are declared by command

**Evaluation:**

**Evaluate Student's Answer.**

Date					
Session					
Class					

## Lesson 14

### Revision

Learning Objectives:	Strategy
By the end of the lesson, the student should be able to:	Dialogue and discussion – Critical thinking – Brain Storming
<ul style="list-style-type: none"> <li>Identify the most important terms of the lesson.</li> <li>Solve the student's book exercises.</li> <li>Write the project's code in right way.</li> </ul>	Teaching aids
	Electronic board – Student's Book – presentation

**Warm up /** What are the most important basics of Atlas project?

### Lesson Presentation

**From the following code, find :**

```
Function GetDataFromExcelSheet(ByVal FilePath As String,
ByVal sql As String) As DataTable
    Dim MyConnection As New OleDb.OleDbConnection
    Dim MyCommand As New OleDb.OleDbCommand
    Dim da As New OleDb.OleDbDataAdapter
    Dim dt As New DataTable
End Function
```

- Function Name .....
- Parameters Name ..... &.....
- Parameter Type .....
- The return value data type .....
- ..... contain the Excel file path on the storage media
- ..... contain The Command which deal with data in the Excel file
- We use the command Dim to declare the variables
- We declare the functions
  - Variable ..... to open connection with data file
  - Variable ..... run the query to collect the data
  - Variable ..... convert data from Excel file to dt
  - Variable ..... has a table to store data from Excel file

**Evaluation:**

**Evaluate Student's Answer**